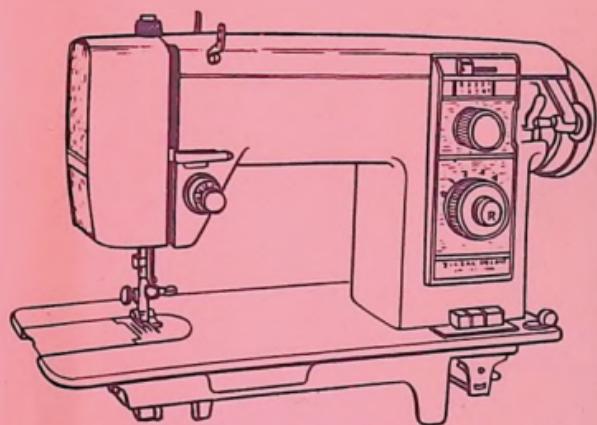


# **De Luxe**

## **SEWING MACHINE**

**OWNER'S  
MANUAL**

**MODEL 301**

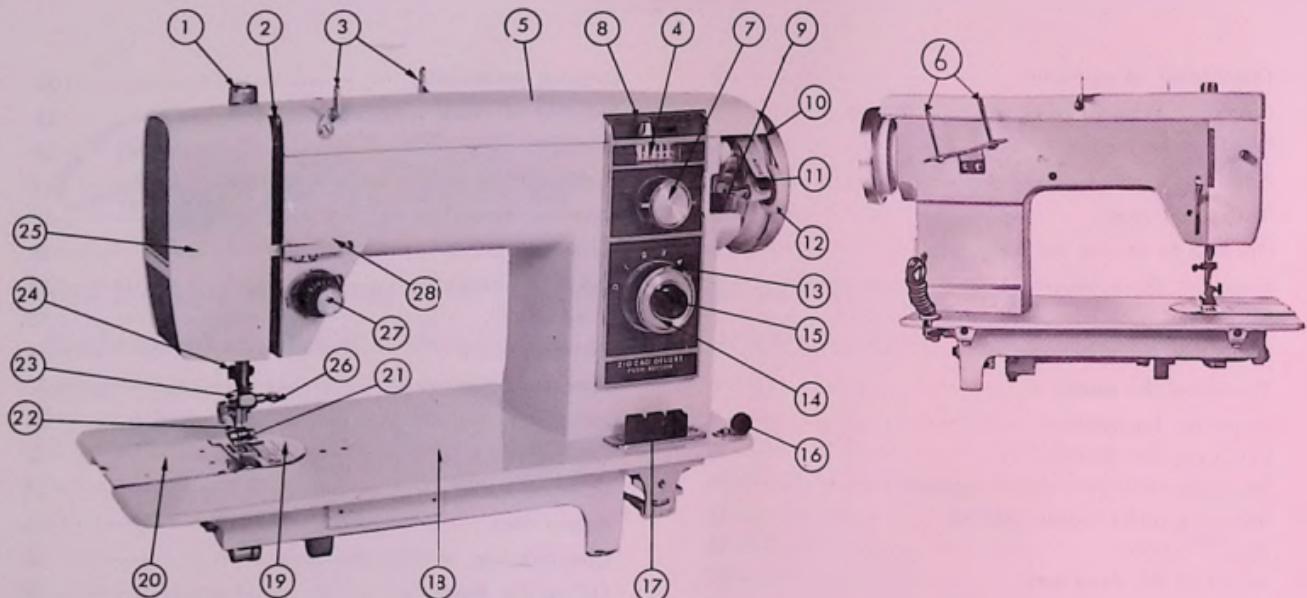


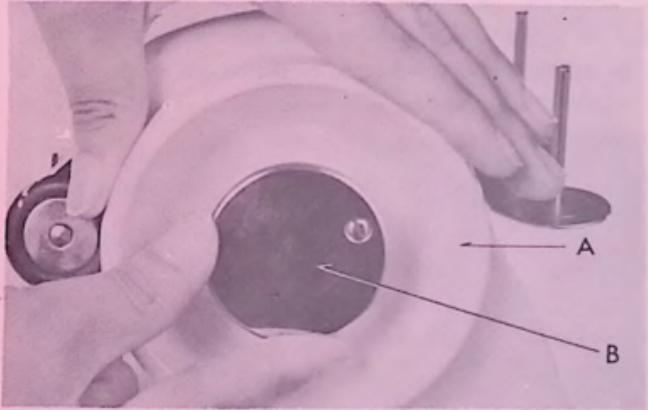
# Congratulations

You are now the owner of a precision engineered Sewing Machine. Give your machine proper care and it will provide many years of trouble free service.

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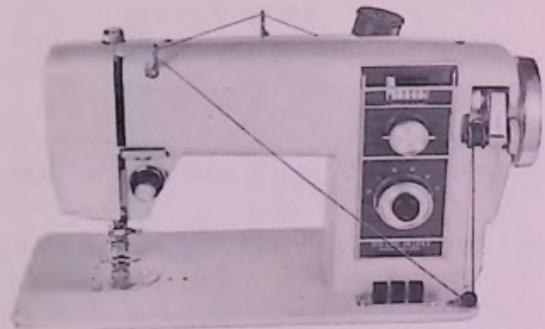




#### OPERATING BALANCE WHEEL AND STOP MOTION

Hold the balance wheel (A) firmly with your left hand and turn the stop motion knob (B) toward you, thus permitting the balance wheel to run freely, so that the bobbin can be wound without operating the stitching mechanism.

To lock balance wheel, turn the stop motion knob away from you.



## 2. WINDING THE BOBBIN

Place the spool of thread on the spool pin (6) and draw out about 12" of thread through tension bracket. Wind thread on to the bobbin seven or eight times toward you. Then set the bobbin on the spindle (A) of the bobbin winder. Should the bobbin wind unevenly, slide tension bracket to left or right as required.

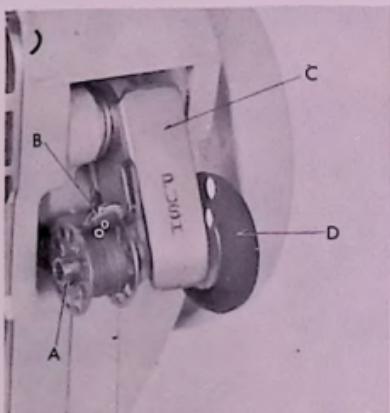
To set the bobbin, put the bobbin on the spindle (A) as shown, pushing up the stop latch (B).

After setting the bobbin, push the lever (C) down and the rubber ring will touch the balance wheel. Then turn the balance wheel toward you and run the machine slowly to wind the bobbin evenly.

When the bobbin is full, it will automatically come to a stop.

Cut the thread and remove the bobbin and retighten balance wheel for sewing.

In order to sew and wind bobbin simultaneously, do not loosen the balance wheel.



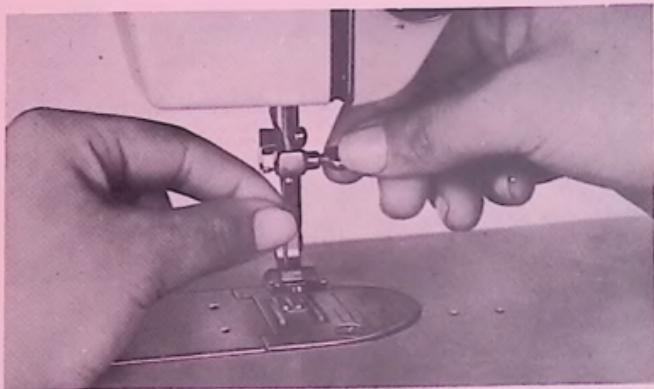


Correct winding

Incorrect winding

#### ADJUSTING TO WIND ON THE BOBBIN

In order to ensure smooth rotation of the bobbin within its case, make sure that the thread is wound evenly on the bobbin, otherwise it may cause thread to break, irregular tension, or fail to produce neat stitches.



#### SETTING THE NEEDLE

Turn the balance wheel toward you until the needle bar reaches its highest position.

Loosen the needle clamp screw.

Insert the needle with the flat side toward the balance wheel and push the needle up into the needle clamp until it hits the stop.

Tighten the needle clamp securely.



## 5. OPENING OR CLOSING THE HINGE PLATE

Our new type hinge plate supersedes the slide plate.  
To open, place finger in recess and lift.



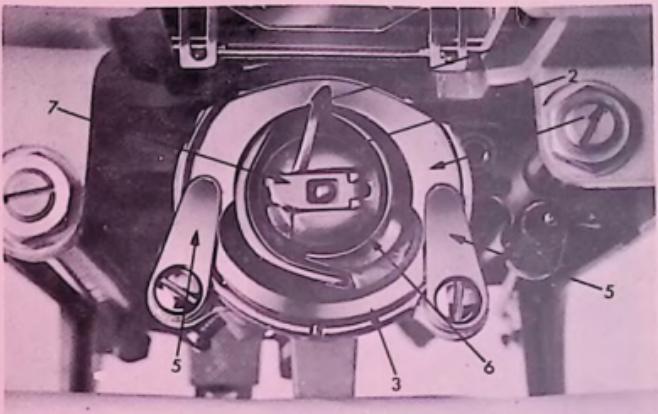
## 6. REMOVING THE BOBBIN CASE

Turn the balance wheel toward you until the needle bar is at its highest position.

Lift the hinged plate and insert thumb and forefinger of left hand.

Open the latch of the bobbin case as shown and take out the bobbin case by holding the latch.

**Important**—The shuttle hook and bobbin case can be knocked out of position if you use a bent needle, or try to take out the bobbin case when the needle bar is lowered.

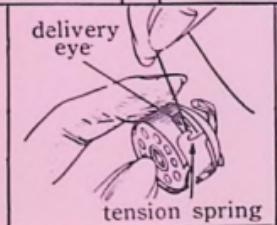
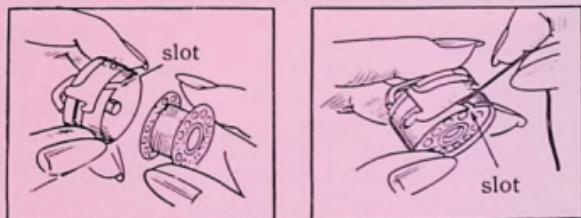


### SETTING THE BOBBIN CASE

Turn the balance wheel toward you until the needle bar is at its highest position.

Hold the latch of the threaded bobbin case between the thumb and forefinger of the left hand, replace the bobbin case. Make sure that the bobbin case position finger is fixed in the notch at the top of the shuttle race. Then release the bobbin case latch to make sure the bobbin case is locked in position.

(1) Position Finger. (2) Bobbin Case. (3) Shuttle Race.  
 (4) Race Ring. (5) Clips. (6) Shuttle Hook. (7) Latch.

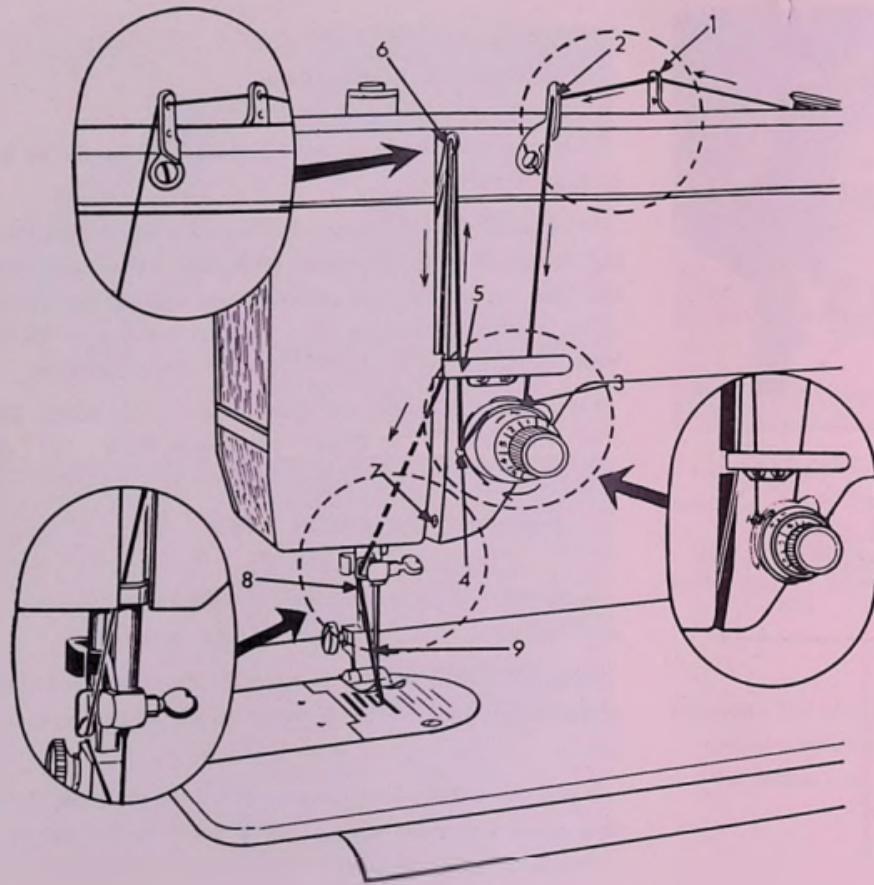


### THREADING THE BOBBIN CASE

Hold the bobbin case between the thumb and forefinger of your left hand with the slot in the edge facing up.

Hold the wound bobbin between the thumb and two fingers of your right hand with the thread on top leading away from you.

Insert the bobbin into the case, pull the thread into the slot, then down under the spring until it enters the delivery eye.



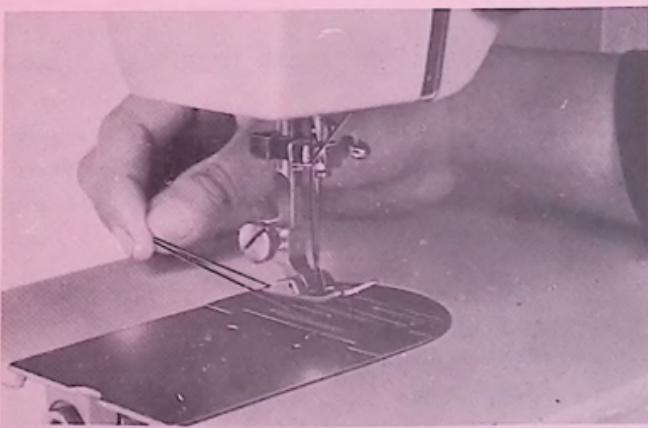
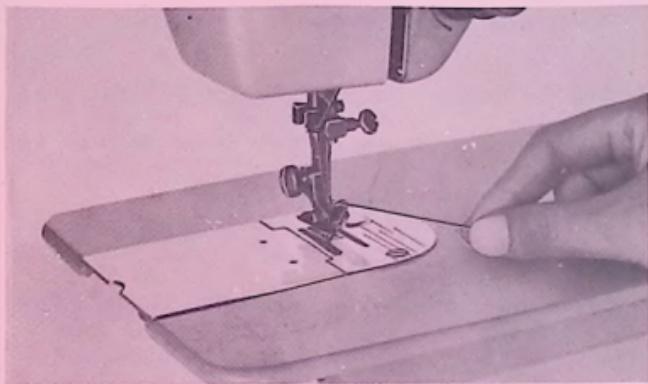
## THREADING THE NEEDLE (Upper Thread)

Place a spool of thread on spool pin and raise the take-up lever to its highest point.

Pull thread through the slot of upper thread guides (1),(2)  
down through the tension discs (3)  
up into the thread check spring (4)  
under the arm thread guide (5)  
and on up into the eye of the take-up lever (6) from right to left.

Return thread through the arm thread guide (5)  
down through the lower guide (7) inside the face plate  
and into the needle bar thread guide (8).

Thread needle from left to right, pulling about four inches of thread through the needle.

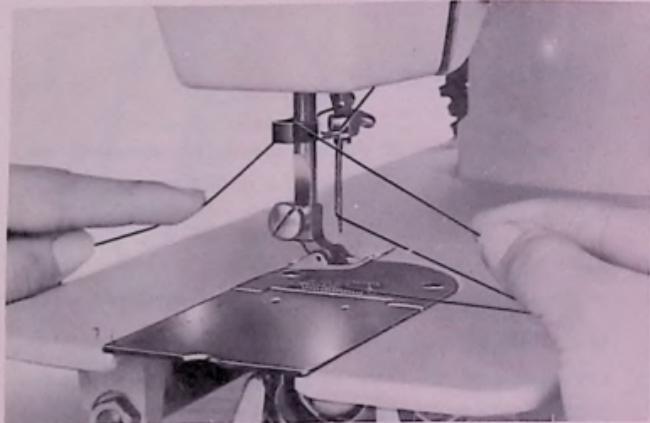


#### PREPARING FOR SEWING

- (a) Pull sufficient thread through the needle and with the left hand hold the end, leaving it slack from the hand to the needle.
- (b) Turn the balance wheel toward you until the needle moves down and up again, thus catching the under thread.
- (c) When the take-up lever is at its highest point, pull the end of the needle thread you are holding and the under thread will be brought up with it through the needle hole in the needle plate.
- (d) Lay both ends of thread under and to the back of the presser foot, and having inserted the material to be stitched, lower the presser bar lifter and commence to sew by turning the balance wheel toward you.

Do not try to help the feeding of the work by pulling the material, as this may deflect the needle and cause it to break. The machine feeds without any assistance.

Never operate the machine without material under the presser foot.



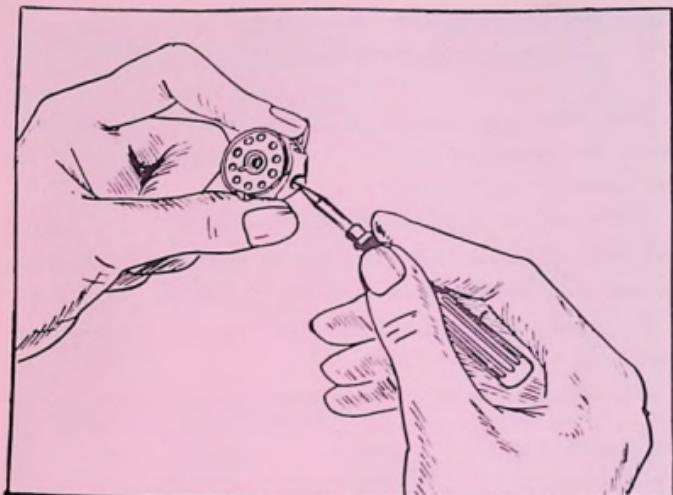
#### REMOVING THE MATERIAL

- (a) Stop the machine when the needle is at its highest point.
- (b) Lift the presser bar lever and draw the material to the left hand side and to the rear of the machine.
- (c) Passing the threads over the thread cutter as shown, pull down lightly and cut the threads.
- (d) Always leave three to four inches of thread for further sewing.



#### ADJUSTING THE UPPER THREAD TENSION

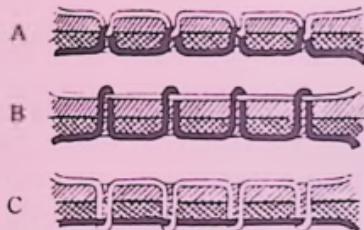
- (a) In most cases the perfect stitch can be obtained by regulating the upper thread tension. To increase the upper thread tension, turn the tension dial clockwise, and to decrease, turn it anti-clockwise.
- (b) The tension dial should not be turned abruptly but little by little until the desired tension is obtained, and always make sure that the presser foot is down when making tension adjustments.



### ADJUSTING UNDER THREAD TENSION

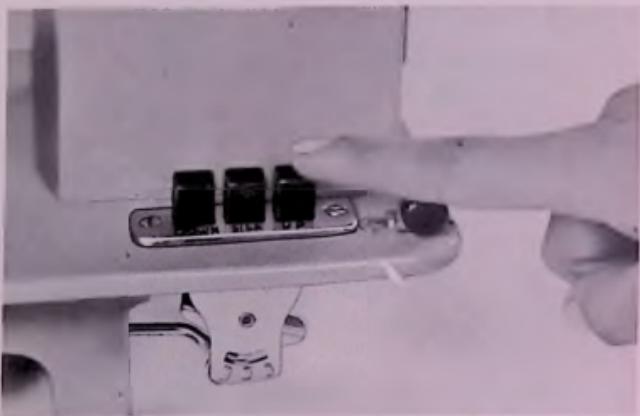
All machines are correctly adjusted before leaving the factory, therefore it is seldom necessary to alter the UNDER tension. Should it become necessary to do so, tighten the tension spring screw to increase the tension and loosen the screw slightly to lessen the tension, using the small screw driver.

### THREAD TENSION



A. Perfect Stitch.  
B. Tight Upper Thread Tension.  
C. Tight Under Thread Tension.

- (a) For ordinary stitching, the needle and the bobbin threads should be locked in the center of the thickness of the material, as illustrated (A).
- (b) If the tension on the needle thread is too tight, or if that on the bobbin is too loose, the needle thread will lie straight along the upper surface of the material, as shown in illustration (B).
- (c) If the tension on the bobbin thread is too tight, or if that on the needle is too loose, the bobbin thread will lie straight along under side of the material, as shown in illustration (C).



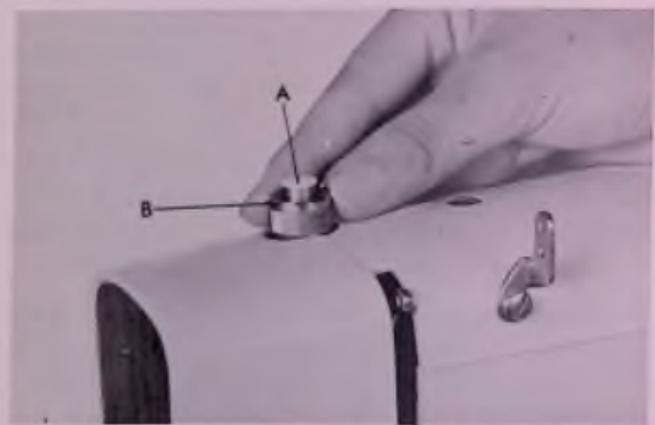
#### ADJUSTING THE DROP FEED

This mechanism drops the feed dog under the needle plate when the material is required to be moved freely by hand for embroidering and darning.

When the left button is pushed completely down (marked DOWN.), it enables the material to be moved freely under the presser foot, which is convenient for embroidery, darning, etc.

For sewing very light material, push the center button completely down (marked SILK).

For ordinary sewing, push the right button completely down (marked UP), when the three buttons are always up and even.



#### REGULATING PRESSURE ON MATERIAL

To increase pressure for heavy materials, press (A) downward, and to release pressure for light materials, darning, etc., press(B) down when (A) will automatically release the pressure.

When darning, lower the presser bar lever and you are ready to darn or embroider.

*Note:* When reverting to normal sewing, do not forget to press "A" into position to give the required pressure on the presser foot, otherwise the machine will not feed properly.



#### REGULATING THE LENGTH OF STITCH

Turn the dial to the right to lengthen and to the left to shorten the stitch. Near 0 is the shortest stitch and 5 is the longest.



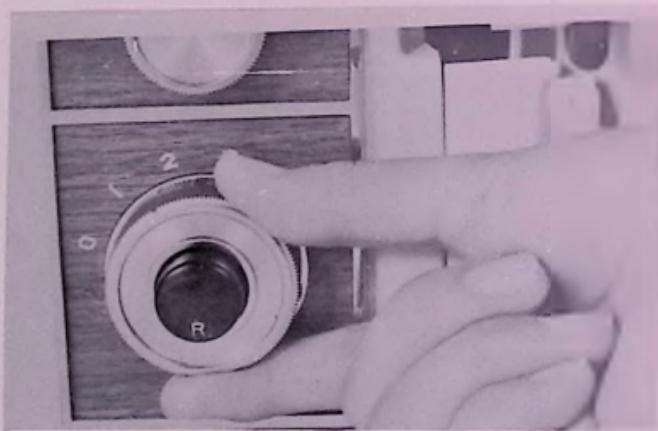
#### SEWING IN REVERSE

To sew backward for tying the threads at the beginning or end of a seam, press in the button R, as far as it will go. The machine will sew backward as long as the button is pressed.



#### REGULATING WIDTH OF ZIGZAG STITCH

The width of zigzag stitch is regulated by the zigzag width knob (A). By turning this knob clockwise from 0-5, the width of stitch can be varied. Turning the stitch width knob will simultaneously activate the red line marker and indicate width of stitch selected.



#### REGULATING LENGTH OF ZIGZAG STITCH

The stitch length dial regulates the length of the zigzag stitch for zigzag sewing in the same manner as for straight sewing. In order to produce the "Satin Stitch" which is the closest zigzag stitch, set the stitch length dial close to 0.



## Straight Stitching

For straight sewing on fine fabric or very soft material, you may want to use the straight stitch presser foot included in your accessory box.

- (A) Loosen thumb screw and remove zigzag presser foot.
- (B) Replace with straight stitch presser foot.

Be sure to set the zigzag width knob at 0, or the needle will break in striking the presser foot.

## 22. Creative Embroidery

Be sure zigzag presser is in place.

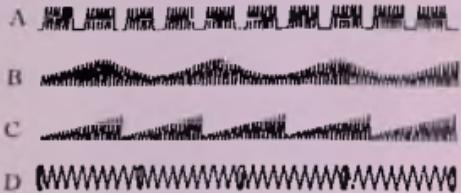
The satin stitch which is really just a very short zigzag stitch and the basis for most embroidery, is obtained by setting stitch length as near 0 as possible without stopping the feeding action and zigzag width at 5.

To stitch continuously at one width of zigzag stitching, set zigzag width dial to chosen stitch width number.

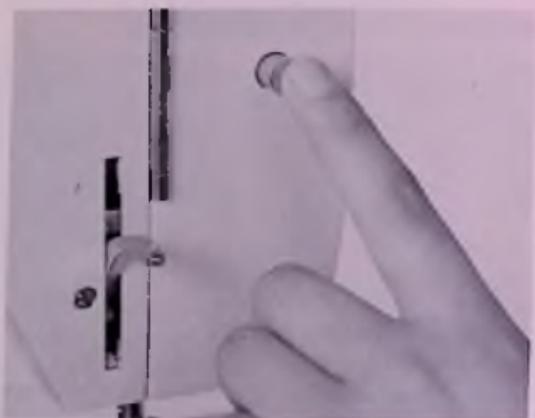
With the machine set for a short stitch length, different designs can be made by turning the zigzag width dial back and forth between 0 and 5 or any other combination of widths.

Set a rhythm for yourself and then proceed. After awhile you will become quite skillful, varying your designs by the speed of the machine, stitch length, and manipulation of the zigzag width knob.

## SAMPLES OF CREATIVE EMBROIDERY



- A. Sew a few stitches at 5 width, then quickly back to 0 for a short period. Count, if necessary, to establish a rhythm.
- B. Set width at 2 then move knob (A) slowly between numbers 2 and 5 rather fast.
- C. Set width at 1. Gradually move knob from 1 to 5, allowing it to snap back quickly.
- D. Set zigzag stitch width at 5, stitch length at 1½. Do a few zigzag stitches, push down drop feed "DOWN" for 3 or 4 stitches, then push down drop feed "UP" to raise the feeding mechanism. By operating the drop feed rhythmically it is not necessary to count stitches.



## SEWLIGHT

The lamp housing is located at the front side of the arm under the face plate. The light switch knob is located at the back side of the face plate.

To switch on or off the light, push the light-switch knob.

### EMBROIDERING WITH A HOOP



It is easy to follow a stamped design or to work free hand when embroidering or monogramming. Release the pressure from the foot by pressing down the snap lock on the automatic darning. Drop the feed completely.

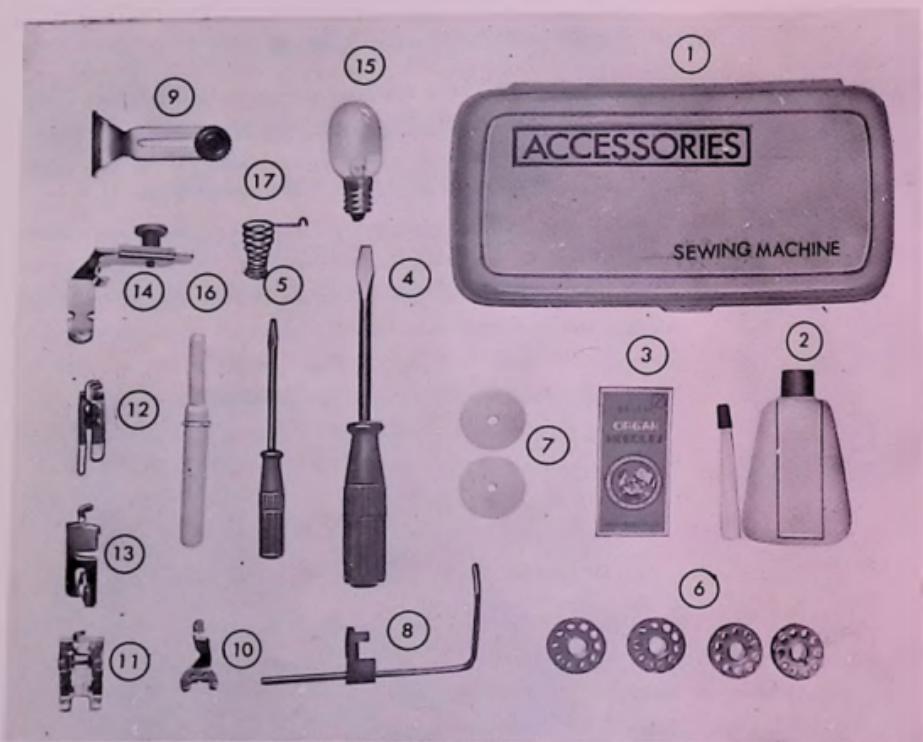
Stretch the fabric in an embroidery hoop, and place under the needle after removing the presser foot. Set the stitch width at the size you prefer and lower the presser bar lifter. Then operate the machine at a rather high speed while moving the hoop slowly with both hands. Work carefully and be sure to keep fingers out of the path of the needle.

Should you encounter skip stitches, the fabric is not stretched tight enough or a darning spring is needed.

### DARN OR MONOGRAM WITHOUT HOOP

If you wish to darn or monogram without embroidery hoop, leave zigzag presser foot in place, release all pressure on presser foot, set stitch length at 0, set zigzag stitch width to suit, and leave feed in sewing position.

When darning or monogramming in this manner the fabric must be held taut or skipped stitches will be encountered.



## ACCESSORIES

1. Accessory Box
2. Plastic Oiler (Sealed and Filled)
3. Package of Needles (5)
4. Large Screw Driver
5. Small Screw Driver
6. Bobbins (4)
7. Felt Washers (2) (for spool pins)
8. Quilter Guide
9. Cloth Guide with Thumb Screw
10. Button Sewing Foot
11. Buttonhole Foot
12. Presser Foot for Straight Sewing
13. Narrow Hemmer
14. Zipper Foot
15. Bulb
16. Seam Ripper
17. Darning Spring

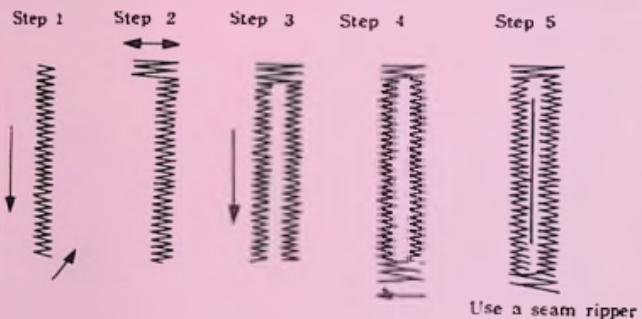


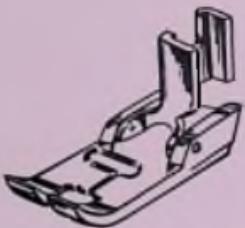
## MAKING BUTTONHOLES

First, mark the beginning and end of the buttonhole on fabric with a basting line or tailor's chalk. Make one on scrap fabric (following directions below) to be sure machine adjustments are correct.

1. Replace presser foot with buttonhole foot which is grooved deeply underneath to prevent piling up of thread.
2. Set stitch width at  $2\frac{1}{2}$  and stitch length lever near 0.
3. Lower needle carefully into the mark on fabric indicating the beginning of buttonhole. Stitch to the mark for the end of the buttonhole, step 1, stopping machine with needle in fabric at right side of stitching.
4. Lift the presser foot and using the needle as a pivot, turn the fabric end for end.
5. Lower presser foot and turn hand wheel just enough to raise needle out of fabric.
6. Turn drop feed to "EMBR" and turn zig-zag stitch width lever as far to the right as possible and hold.

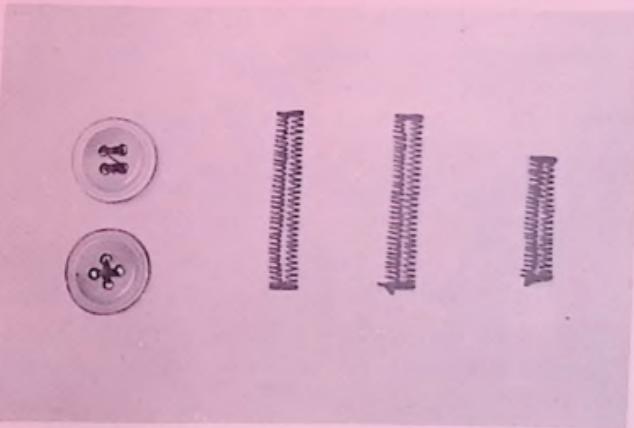
Take five or six stitches to form bar tack step 2.





7. Raise needle out of fabric, turn the zigzag lever back to  $2\frac{1}{2}$  and return the drop feed to "NORM."
8. Stitch second side of buttonhole, step 3.
9. Stitch bar tack by repeating 5 and 6 above (step 4).
10. Return stitch width to 0 and take two or three stitches to fasten bar threads and prevent ravelling. Cut the buttonhole opening , being careful not to cut the stitching.

If you plan to make buttonholes on sheer or soft material, place tarlatan or paper, under fabric which can be torn away after stitching.



#### BUTTON SEWING

Turn balance wheel toward you to get needle to its highest position. Raise presser bar and replace regular presser foot with button sewing foot. Drop the feed dog as required for darning and embroidering. Upper and lower thread tensions remain the same as for ordinary sewing.

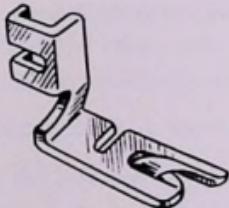
Place material or garment together with button under the presser foot so that holes in button line up with oblong hole in presser foot.

Adjust width of zigzag stitch to permit needle to pass through center of holes in button. Then lock zigzag width position.

Before sewing with power, turn the balance wheel by hand toward you to make sure that needle will stitch in the center of the holes in button. If the needle hits the button it will break.

Then sew five to six stitches to attach button.

When attaching four-hole buttons, first sew one set of two holes. Then stitch into second set of two holes. Release zigzag width lock and lock thread with two or three plain stitches in last hole.



### NARROW HEMMING

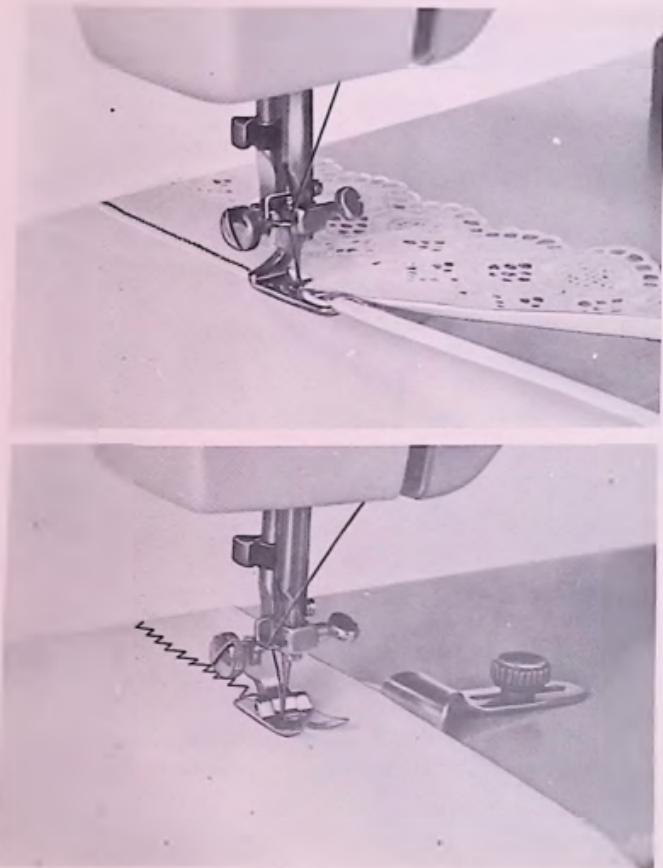
Turn balance wheel toward you until needle reaches its highest point. Raise presser bar and remove the regular presser foot. Attach hemmer foot.

1. Fold over edge of material approximately  $1/8"$  wide, then fold it over again in the same way for a length of about 2". Insert this folded end from beneath into spiral formed opening (scroll) or hemmer foot. Move material back and forth until the hem forms itself in the scroll.
2. Pull material toward you until the beginning of the hem is just below the needle.
3. Lower presser foot and begin to sew. Guide material into hemmer foot while sewing.

**NOTE :** Do not crowd material into scroll and do not leave scroll only partly filled by material.

Feed just enough material into the hemmer foot to fill out the scroll.

Instead of a straight stitch, you can also use a zigzag stitch for this hemming operation. Be sure, however, to adjust the width of the zigzag stitch to be as wide as the hem itself. Using a very long stitch and tight tensions will produce a shell stitch.



#### HEMMING AND INSERTING LACE IN ONE OPERATION

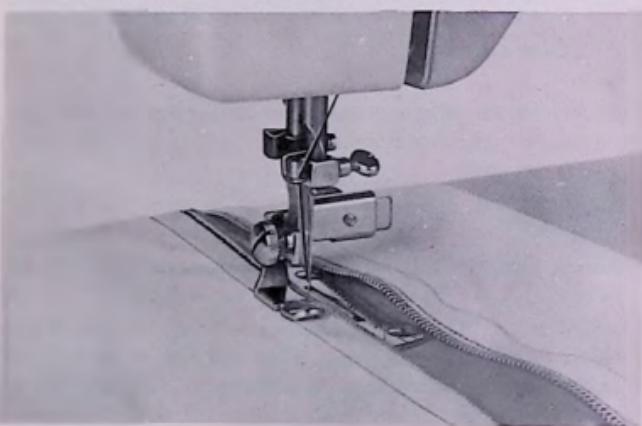
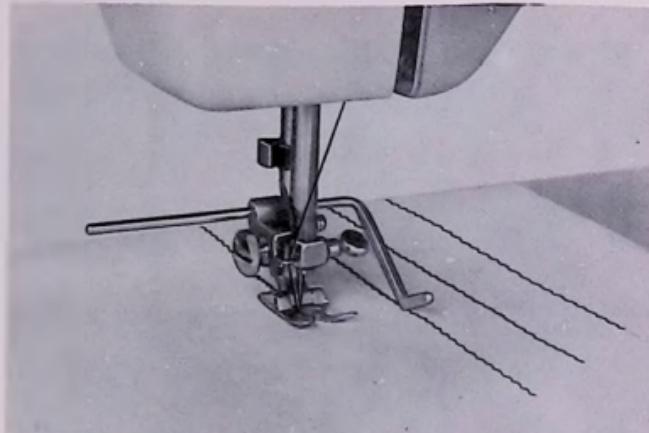
The Narrow Hemmer is designed with a slot at the right, into which lace, braid, or any other finished trimming edge can be inserted, and stitched to the garment while hem is being made.

1. Proceed to make a hem in the manner described.
2. Insert edge of lace or trimming right side down in slot of Hemmer.
3. Commence to sew, guiding edge of the lace into the slot of the Hemmer with the right hand, and guiding the material into the Hemmer with the left hand.

#### 32. CLOTH GUIDE

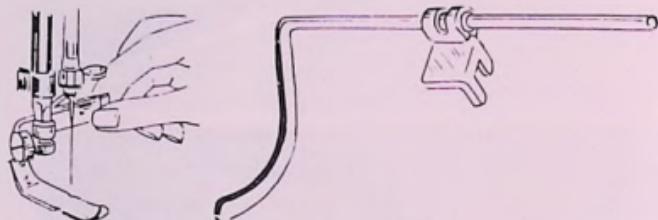
This attachment is most convenient for guiding the cloth so as to keep the stitching parallel to the edge of the material.

1. Attach Cloth Guide to the machine bed, with the screw supplied, into one of the two screw holes in the bed, as shown.
2. Adjust the Guide to the required distance between the needle and the Guide, and tighten screw firmly.
3. The Cloth Guide can be adjusted to bring the line of stitching as close to the edge of the material as desired, or as far away as the maximum adjustment permits, which is about  $1\frac{1}{2}$ ".



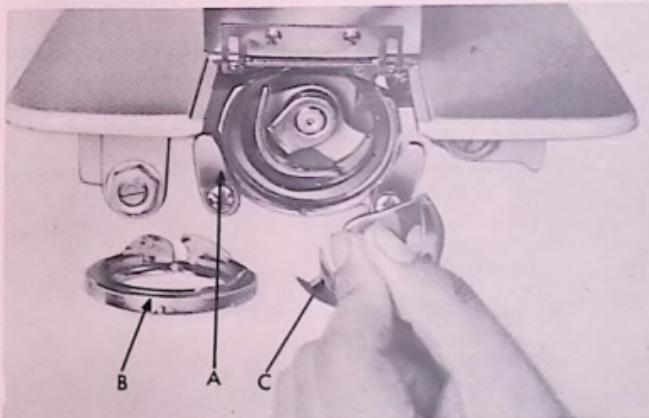
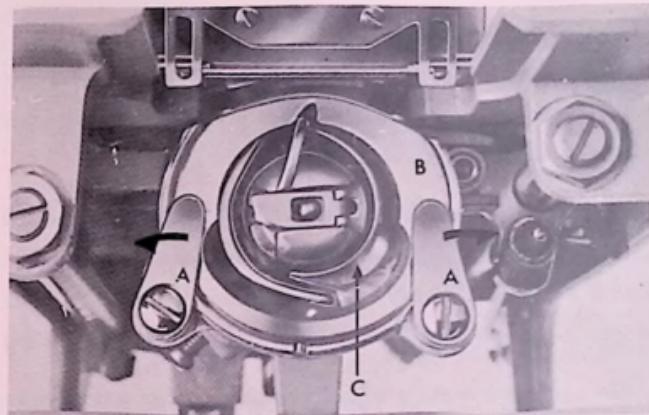
### QUILTING GUIDE

Use this guide for making parallel rows of straight or decorative stitching. Attach standard presser foot. Slip U shaped holder on guide under presser foot thumb screw from the back and tighten screw. Adjust the curved bar for the distance desired between rows of stitches and set so it presses slightly on the fabric. By letting the guide ride on the previous stitching line, successive rows will be an equal distance apart.



### ZIPPER FOOT

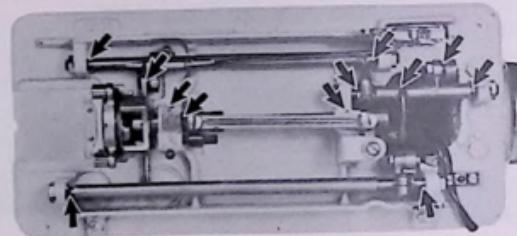
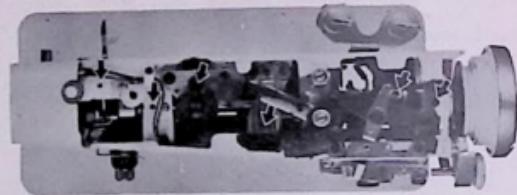
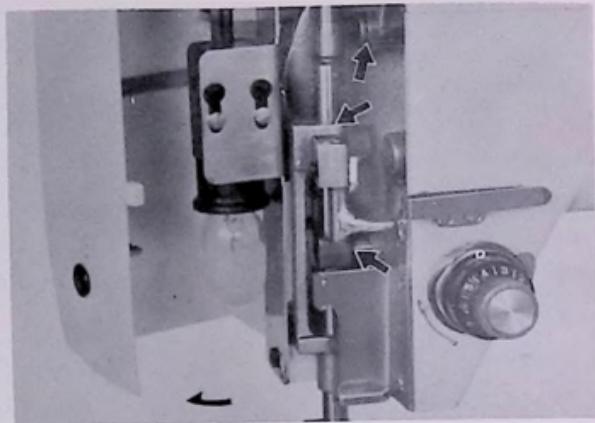
1. Remove the presser foot as previously described, and attach the Zipper Foot with the same screw as illustrated.
2. By releasing the adjusting screw at the back of the foot, the foot can be moved to the left or right of the needle, according to which side of the zipper or cording is being sewn.



### CLEANING THE SHUTTLE MECHANISM

When the machine is continually in use, it is necessary to clean the race at least once a month.

- (a) Take out the bobbin case, and release the clip (A) on both sides of the shuttle race by pushing them down from the center.
- (b) Remove the race ring (B) and take out the shuttle hook (C).
- (c) Remove accumulated thread, etc., from retaining ring, hook and race body.
- (d) Oil again, wipe off surplus oil and replace.



### OILING THE MACHINE

To see that your machine is always in smooth running condition, you must keep it oiled at all times.

No grease is required, just a drop of oil is sufficient at each time of oiling. Points to be oiled are illustrated.

To oil your machine thoroughly, open arm cover and face plate and turn the machine over to get to parts underneath the bed.

After oiling, run the machine at high speed for a few minutes to let the oil penetrate to all parts.

Use only a good sewing machine oil. Do not use common household oil. Do not over-oil.

### HINTS ON SMOOTH SEWING

Trouble	Probable Cause	Correction
If Machine Binds	Thread or lint in raceway	Remove bobbin case, race cover and shuttle race. Clean thread and lint from all parts. Run a drop of oil along rim of hook. Replace removed parts.
Skipping Stitches	Bent needle	Discard and replace.
	Needle place incorrectly in clamp	See instruction page 5.
	Too fine a needle for thread being used	See needle and thread chart, page 29.
Irregular Stitches	Upper thread tension too loose	Tighten upper tension.
	Improper threading	See threading instruction, page 8.
	Bobbin not wound even	Rewind bobbin.
Uneven Stitches	Pulling or holding material	Avoid pulling or holding material, just guide it.
	Not enough tension on upper thread	Increase tension.
	Poor quality thread	Try different thread.
	Needle too fine for thread being used	See needle and thread chart, page 29.

Trouble	Probable Cause	Correction
Upper Thread Breaking	Improperly threaded	Refer to threading instructions. See page 8 and rethread machine.
	Too much tension	Loosen tension on upper thread by turning thread tension knob to lower number.
	Starting with take-up in incorrect position	Always start sewing with take-up lever in highest position.
	Improper setting of needle	Refer to needle setting instruction. See page 5.
	Bent or eye of needle too sharp	Try a new needle.
	Bent or blunt needle	Discard all blunt or bent needles and replace with new ones.
Material Puckering	Tensions too tight	See tension adjustment page 10.
	Dull needle	Change needle.
	Stitch length too long	Reduce stitch length.

## NEEDLE AND THREAD SIZES (USE 15×1 NEEDLE ONLY)

Sizes & Grades of Needles	Type of Fabric and Work to be Done	SIZE OF THREAD		
		Cotton	Silk	Linen
11 (Medium-Fine)	Medium, light-weight and summertime fabrics. For house dresses, children's dresses, washable cotton dresses, aprons, curtains.	80 to 100	0 Twist	
14 (Medium)	Dress silks and cottons, light weight woolens, draperies, fabric furnishings. For general household sewing, fine men's shirts, smocks, window draperies and fabric decorations.	60 to 80	A & B Twist	
16 (Light-Heavy)	Heavy cretonne, madras, muslin, brocades and quilts. For men's work shirts, sturdy smocks and aprons, heavy quilting and fabric furnishings.	40 to 60	C Twist	
18 (Medium-Heavy)	Heavy woven coating, light weight canvas, bed ticking, upholstery and awning materials, slipcover fabrics. For work or sports uniforms, suits made of strong linen or cotton fabrics, awnings, slip covers and mattresses.	30 to 40	D Twist	
19 (Heavy)	Heavy woven suiting, coating, duck, ticking, drilling, canvas and sacking. For heavy wash uniforms, bedding supplies for hospitals, hotels and camps.	10 to 30	E Twist	60 to 80
21 (Extra-Heavy)	For bags, canvas, coarse cloths and heavy goods.	Very Coarse		40 to 60

## FOR PORTABLE INSTALLATION

Please read these important instructions which were written to aid you in placing your new sewing machine on its portable base.

First, remove the nail which holds the foot control inside the base to avoid damage in shipping. If a small plastic clamp is fastened to the back and not to the top of the partition at one end of the base, remove it, too.

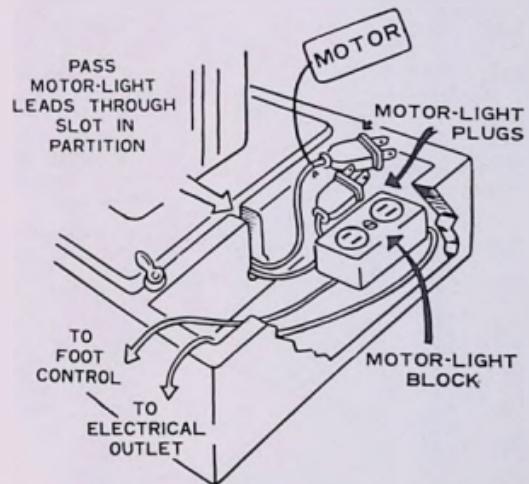
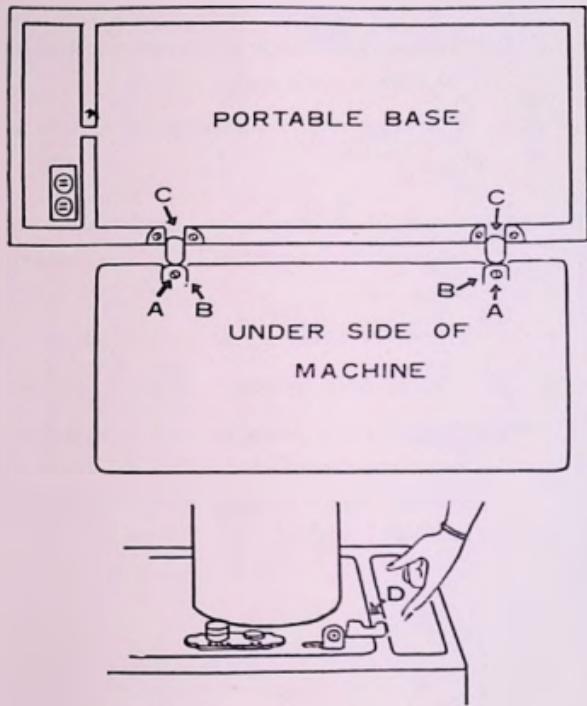
After unpacking the sewing machine unit, being certain to take out the instruction book, guarantee and accessory box, lay the unit face down on a table. You will see two clamping screws A entering head hinge holes B on the underside of the back.

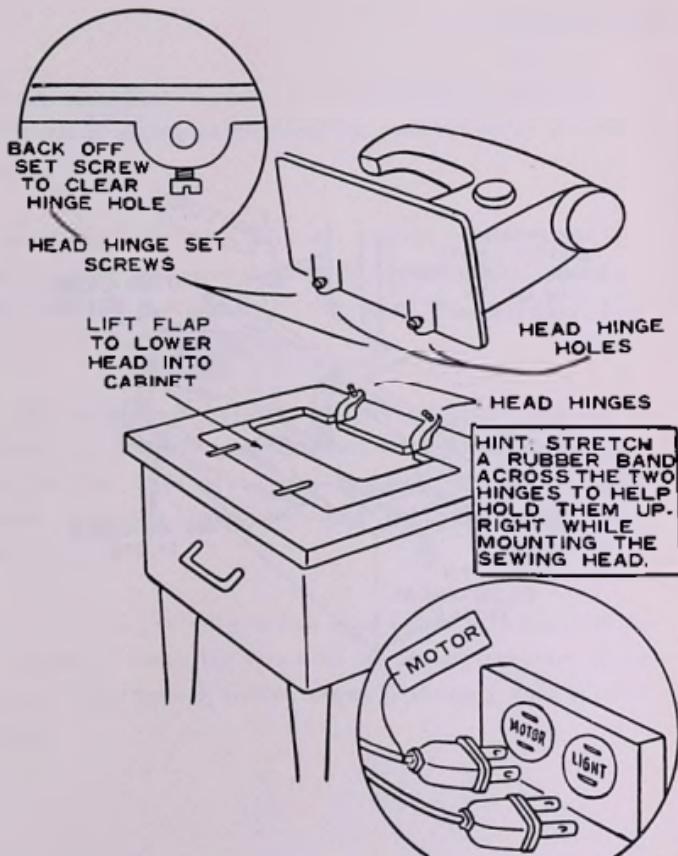
On the base you will find two head hinges C which will fit into holes B. Lower the base onto the sewing machine fitting hinges C into holes B. Tighten screws A securely with a screw driver.

With machine in sewing position attach plastic clamp D to top of partition with screw provided so that it may be turned across the bed of the machine, to hold it down. (On some bases the clamp may be positioned in the proper spot.)

To make the electrical connection draw the two wires through the slot in the partition of the base. Plug the cord labeled "Motor" into the receptacle marked "Motor" on the block attached to the outer section of the base. Then insert the other cord into the "Light" receptacle.

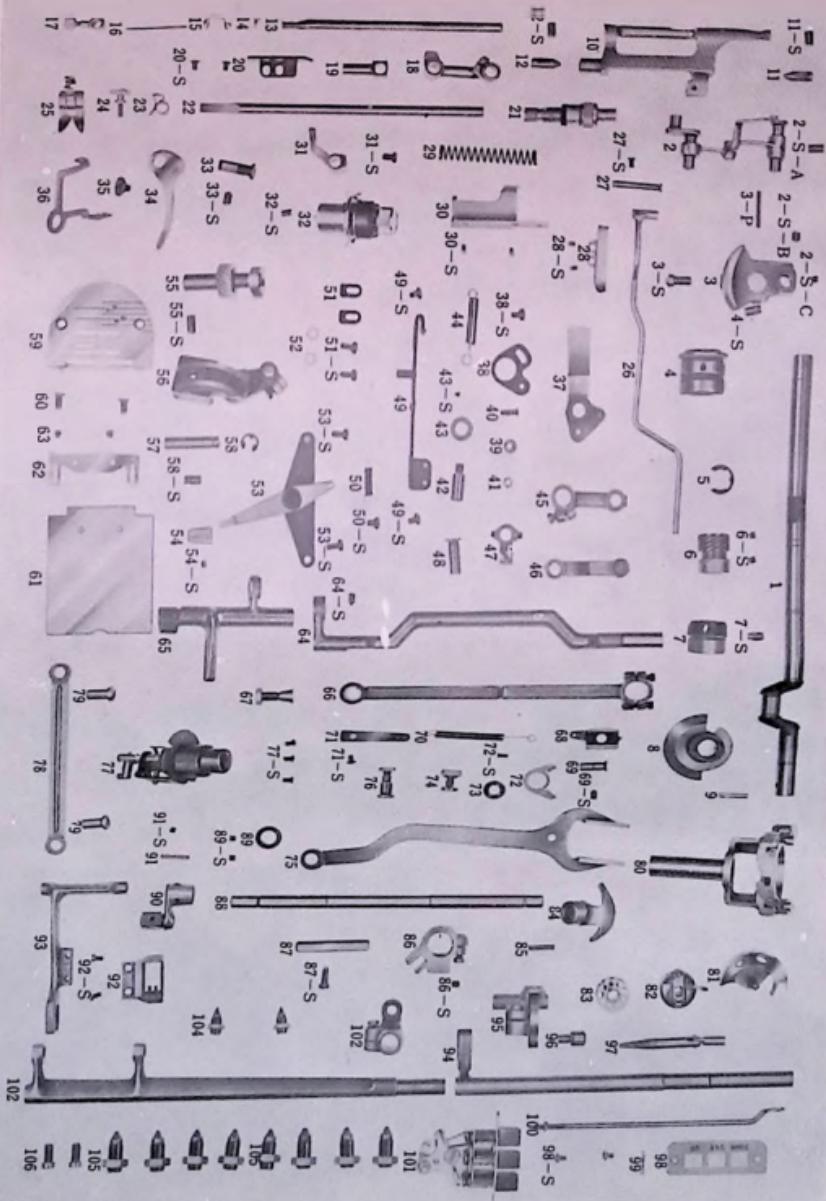
Place the foot control on the floor, insert plug into a wall outlet (110-115 volts) and you are ready to sew. But first read the instruction book to become familiar with the threading of the machine, tension adjustments and all the other features designed to make sewing a pleasure.

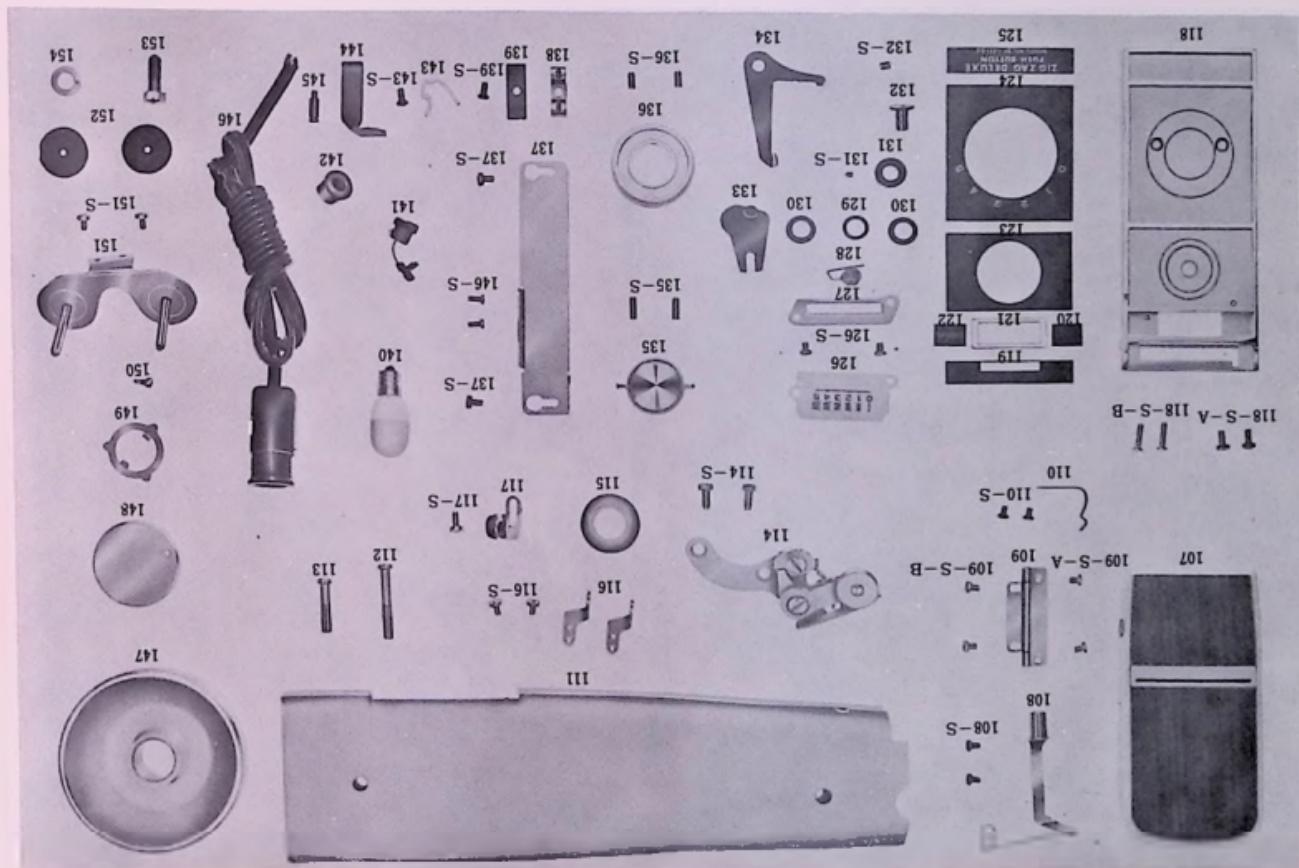




## INSTALLING SEWING HEAD IN CABINET

1. Loosen head hinge set screws until head hinge hole is clear.
2. Tilt head hinge tongues up and back as far as they will go.
3. Carefully slip head onto head hinges making sure tongues are inserted as far as they can go into head hinge holes.
4. Allow the head to rest in its tilted back position.
5. Tighten both set screws securely with screw driver.
6. Plug electrical leads into sockets located inside cabinet. Cord identified with "motor" tag must be plugged into socket marked "motor". Untagged cord goes to "light" socket.





Parts No.	Description	Pcs	Parts No.	Description	Pcs
1	Arm shaft	1	19	Needle bar connecting stud	1
2	Thread take up lever complete	1	20	Needle bar crank guide	1
2-S-A	Thread take-up lever set screw	1	20-S	Needle bar crank guide set screw	2
2-S-B	Thread take-up crank set screw B	1	21	Pressure regulator	1
2-S-C	Thread take-up crank set screw C	1	22	Presser bar	1
3	Crank weight	1	23	Thread cutter	1
3-S	Crank weight set screw	1	24	Presser foot set screw	1
3-P	Arm shaft taper pin	1	25	Presser foot	1
4	Arm shaft bushing	1	26	Needle bar connecting rod	1
4-S	Arm shaft bushing set screw	1	27	Needle bar connecting rod pin	1
5	Arm shaft washer	1	27-S	Needle bar connecting rod set screw	1
6	Arm shaft screw gear	1	28	Middle thread guide	1
6-S	Arm shaft screw gear set screw	1	28-S	Middle thread guide set screw	2
7	Feed cam	1	29	Presser bar spring	1
7-S	Feed cam set screw	1	30	Thread guide	1
8	Stop motion bushing	1	30-S	Thread guide set screw	2
9	Stop motion bushing taper pin	1	31	Presser bar bracket	1
10	Needle bar holder	1	31-S	Presser bar bracket set screw	1
11	Needle bar holder upper center	1	32	Dial tension	1
11-S	Needle bar holder upper center set screw	1	32-S	Dial tension set screw	1
12	Needle bar holder lower center	1	33	Presser bar lifter pin	1
12-S	Needle bar holder lower center set screw	1	33-S	Presser bar lifter pin set screw	1
13	Needle bar	1	34	Presser bar lifter	1
14	Needle bar thread guide screw	1	35	Thread tension release set screw	1
15	Needle bar thread guide	1	36	Thread tension release	1
16	Needle	1	37	Zigzag width regulator	1
17	Needle clamp with screw	1	38	Zigzag width regulator arm	1
18	Needle bar connecting link	1	38-S	Zigzag width regulator arm set screw	1

Parts No.	Description	Pcs	Parts No.	Description	Pcs
39	Zigzag width regulator arm eccentric collar	1	59	Needle plate	1
40	Zigzag width regulator arm eccentric collar set screw	1	60	Needle plate set screw	2
41	Zigzag width regulator arm eccentric collar nut	1	61	Slide plate	1
42	Zigzag width regulator stud	1	62	Slide plate back spring	1
43	Zigzag width regulator stud collar	1	63	Slide plate back spring set screw	2
43-S	Zigzag width regulator stud collar set screw	1	64	Zigzag vertical shaft	1
44	Zigzag width regulator spring	1	64-S	Zigzag vertical shaft set screw	1
45	Zigzag connecting link A	1	65	Oscillating rock shaft	1
46	Zigzag connecting link B	1	66	Crank connecting rod	1
47	Needle bar connecting metal	1	67	Crank connecting rod hinge screw with nut	1
48	Zigzag connecting link stud	1	68	Feed regulator	1
49	Zigzag width adjust connecting plate	1	69	Feed regulator pin	1
49-S	Zigzag width adjust connecting plate set screw	2	69-S	Feed regulator pin set screw	1
50	Zigzag width adjusting lever spring	1	70	Feed regulator spring	1
50-S	Zigzag width adjusting lever spring stud screw	1	71	Spring hook for feed regulator link	1
51	Zigzag width adjusting stopper	2	71-S	Spring hook set screw	1
51-S	Zigzag width adjusting stopper set screw	2	72	Feed adjusting plate	1
52	Zigzag width adjusting stopper washer	2	72-S	Feed adjusting plate screw	1
53	Zigzag width adjusting lever	1	73	Feed regulator washer	1
53-S	Zigzag width adjusting lever set screw	2	74	Feed regulator slide block	1
54	Zigzag width adjusting lever knob	1	75	Feed forked connecting rod	1
54-S	Zigzag width adjusting lever knob set screw	1	76	Feed forked connecting rod hinge screw with nut	1
55	Zigzag cam with screw gear	1	77	Feed adjuster complete	1
55-S	Zigzag cam set screw	1	77-S	Feed adjuster set screw	3
56	Zigzag cam stand assembly	1	78	Shuttle race connecting rod	1
57	Zigzag cam stand stud	1	79	Shuttle race connecting rod stud	2
58	Zigzag cam stand stud washer	1	80	Shuttle race	1
58-S	Zigzag cam stand stud screw	1	81	Shuttle hook	1

Parts No.	Description	Pcs	Parts No.	Description	Pcs
82	Bobbin case	1	104	Feed bar center screw with nut	2
83	Bobbin	1	105	Center screw with nut	8
84	Shuttle driver with spring	1	106	Bed hinge screw	2
85	Shuttle driver taper pin	1	107	Face plate complete	1
86	Shuttle race guide	1	108	Lamp switch assembly	1
86-S	Shuttle race guide screw	1	108-S	Lamp switch assembly set screw	2
87	Shuttle race guide stud	1	109	Face plate hinge	1
87-S	Shuttle race guide stud screw	1	109-S-A	Face plate hinge screw A	2
88	Lower shaft	1	109-S-B	Face plate hinge screw B	2
89	Lower shaft collar	1	110	Face plate spring	1
89-S	Lower shaft collar set screw	2	110-S	Face plate spring set screw	2
90	Oscillating shaft crank with slide block	1	111	Top plate	1
91	Oscillating shaft crank taper pin	1	112	Top plate set screw front	1
91-S	Oscillating shaft crank screw	1	113	Top plate set screw rear	1
92	Feed dog	1	114	Bobbin winder arrangement	1
92-S	Feed dog set screw	2	114-S	Bobbin winder set screw	2
93	Feed bar	1	115	Bobbin winder rubber ring	1
94	Feed lifting rock shaft	1	116	Upper thread guide	2
95	Feed lifting rock shaft crank	1	116-S	Upper thread guide set screw	2
96	Feed lifting rock shaft crank roller	1	117	Bobbin winder tension bracket	1
97	Drop feed connecting bar	1	117-S	Bobbin winder tension bracket set screw	1
98	Drop feed plate	1	118	Stitch plate stand	1
98-S	Drop feed plate set screw	2	118-S-A	Stitch plate set screw A	2
99	Drop feed connecting rod pin	1	118-S-B	Stitch plate set screw B	2
100	Drop feed connecting rod	1	119	Stitch plate indicator A	1
101	Drop feed body	1	120	Stitch plate indicator B	1
102	Feed rock shaft	1	121	Stitch plate indicator C	1
103	Feed rock shaft connecting link	1	122	Stitch plate indicator D	1

Parts No.	Description	Pcs	Parts No.	Description	Pcs
123	Stitch plate indicator E	1	143-S	Lamp cord guide set screw	1
124	Stitch plate indicator F	1	144	Lamp cord guide B	1
125	Stitch plate indicator G	1	145	Lamp cord guide pin	1
126	Zigzag width indicator plate	1	146	Lamp complete	1
126-S	Zigzag width indicator plate set screw	2	147	Balance wheel	1
127	Zigzag width indicator plate stand	1	148	Clamp stop motion clamp screw	1
128	Zigzag width indicator	1	149	Clamp stop motion washer	1
129	Zigzag width connecting stand washer A	1	150	Clamp stop motion clamp stop screw	1
130	Zigzag width indicator connecting stand washer B	2	151	Spool pin base with spool pin	1
131	Zigzag width connecting stand collar	1	151-S	Spool pin base set screw	2
131-S	Zigzag width connecting stand collar set screw	1	152	Felt pad	2
132	Zigzag width connecting arm stud	1	153	Motor set screw	1
132-S	Zigzag width connecting arm stud set screw	1	154	Motor set screw washer	1
133	Zigzag width connecting stand	1			
134	Zigzag width connecting arm	1			
135	Zigzag width knob	1			
135-S	Zigzag width knob set screw	2			
136	Stitch length knob	1			
136-S	Stitch length knob set screw	2			
137	Lamp installing plate	1			
137-S	Lamp installing plate set screw	2			
138	Lamp cord setter A	1			
139	Lamp cord setter B	1			
139-S	Lamp cord setter B set screw	1			
140	Bulb	1			
141	Lamp cord bushing	1			
142	Lamp cord	1			
143	Lamp cord guide A	1			

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